

Teaching Notes for NASA Case Study

SCSC-T-XXXX

SCSC Teaching Notes Template

- **Teaching Notes** The teaching notes provide information to assist the instructor with the facilitation of the case study. Are any materials necessary before beginning? Should participants be separated into groups? If so, what size groups are recommended to encourage discussion? What length of time is suggested for reading and discussion?
 - Overview Provide a brief synopsis of the case.
 - o **Learning Objectives** List the learning objectives and outcomes participants may expect by completing this case study.
 - Classroom Management Identify the appropriate category for the case (i.e., Class Discussion, Group Activity, or Targeted Research). Include suggested focus areas and important engineering concepts and best practices.
 - Class Discussion Provide a few questions to encourage the discussion. Be sure to suggest where during the case study discussion these questions should be asked. Should the group discuss how the problem should be solved before knowing the actual final decision? Or should all questions occur only after reading the case study in its entirety?
 - Group Activity Incorporate engineering concepts in a suggested list of group activities. If desired, include a "hands-on" activity with instructions. Be sure to include any pertinent equations to reinforce concepts and learning objectives. If a mathematical problem-solving activity is provided, be sure to include an answer key as a separate document.
 - Targeted Research Utilize case information to develop a conceptual, in-depth research report. Allow students to think of a possible topic or include a pre-assigned topic. If topics are chosen by the student, allow adequate time for each student to research their ideas to ensure enough material is available for the report. Once topics are solidified, instruct students to continue with literature review and begin development of paper, technical drawings, etc. Allow for individual or group presentation of topic findings (dependent upon whether research was a group or individual assignment).

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o **References** – List all supporting websites, articles, journals, etc. used within your document using the Chicago Manual of Style format. Be sure to also include references for all images and drawings included within your document.

o **Additional Resources** – List any additional resources which would provide instructors with insightful material about the case and/or concepts discussed within the case.